

1 **CLAIMS**

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3 1. A method, comprising:

4 establishing an extensible list of attributes of various information resources
5 in an information system, wherein each information resource can be classified
6 according to one or more attributes;

7 establishing an extensible list of values for the attributes in the extensible
8 list of attributes, wherein each value is associated in the list with its corresponding
9 attribute; and

10 selecting a first set of one or more of the values from the extensible list of
11 values to be a first set of target criteria to designate a subset of the information
12 resources.

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14 2. The method as recited in claim 1, further comprising:

15 assigning a priority weight to each of the attributes in the list of attributes;
16 and

17 adding the priority weights of each attribute associated with a value in the
18 first set of target criteria to obtain a priority sum for the first set of target criteria.

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20 3. The method as recited in claim 2, further comprising selecting
21 additional sets of target criteria to designate a spectrum of subsets of the
22 information resources, wherein a priority sum of each additional set of target
23 criteria is compared to the priority sum of the first set of target criteria to
24 determine whether a particular one of the additional sets of target criteria

1 designates a more general or a more specific subset of information resources than
2 designated by the first set of target criteria.

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4 4. The method as recited in claim 3, wherein each information resource
5 includes one or more content elements and each content element can be classified
6 according to one or more attributes.

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8 5. The method as recited in claim 4, wherein each resource and each
9 content element in each resource is linked with a set of target criteria and if a
10 resource is designated as a member of a subset by a set of target criteria then
11 priority sums of each respective set of target criteria linked to each content
12 element in the resource are compared to the priority sum of the set of target
13 criteria linked to the resource to rank the content elements in the resource
14 according to similarity with the priority sum of the set of target criteria linked to
15 the resource.

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17 6. The method as recited in claim 5, further comprising localizing
18 information resources and content elements in the information system for a user of
19 the information system by presenting the user with one or more of the subsets of
20 the information resources designated by one or more of the first set of target
21 criteria and the additional sets of target criteria.

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23 7. The method as recited in claim 1, wherein a database structure of the
24 information system remains unchanged during expansion and contraction of the
25 extensible list of attributes and the extensible list of values.

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2 8. The method as recited in claim 7, further comprising adding
3 attributes to the extensible list of attributes.

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5 9. The method as recited in claim 8, further comprising adding values
6 associated with the added attributes to the extensible list of values.

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8 10. The method as recited in claim 9, further comprising selecting a set
9 of values including one or more of the added attributes to designate a subset of the
10 information resources with greater specificity.

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12 11. The method as recited in claim 1, wherein each value of each
13 attribute of each information resource is included in the extensible list of values.

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15 12. A data structure, comprising:
16 an extensible table of attributes, wherein various content elements in an
17 information system possess values of the attributes and wherein each attribute in
18 the extensible table of attributes is associated with a priority weight;
19 an extensible table of values of the attributes, wherein each value is
20 associated with its corresponding attribute; and
21 a set of one or more of the values to designate a subset of the content
22 elements, wherein a priority weight of each attribute associated with each value in
23 the set is summed to determine a priority sum of the set.

1 13. The data structure as recited in claim 12, further comprising multiple
2 sets of one or more values to designate multiple subsets of the content elements,
3 wherein priority sums of respective sets in the multiple sets can be compared to
4 determine similarities and differences between subsets of content elements
5 designated by the multiple sets.

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7 14. The data structure as recited in claim 13, further comprising a list of
8 the multiple sets, wherein the list of multiple sets is arranged according to a
9 numerical order of the respective priority sums of sets in the multiple sets.

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11 15. A content management engine, comprising:
12 a classification engine to determine attributes of information resources in an
13 information system;
14 an attribute table manager in communication with a dynamic table of
15 attributes and priorities;
16 a prioritizer to assign priority weights to each attribute in the attribute table;
17 a values table manager in communication with a dynamic table of values,
18 wherein each value and its associated attribute possessed by one of the information
19 resources is represented in the values table;
20 a target criteria engine to create target criteria sets of one or more of the
21 values, wherein a target criteria set designates a subset of the information
22 resources in the information system based on the one or more values; and
23 a localization engine to make information resources in the subset available
24 to a user of the information system.

1 16. The content management engine as recited in claim 15, further
2 comprising a target criteria set comparator to compare a priority sum of a first
3 target criteria set to a priority sum of a second target criteria set, wherein a priority
4 sum is the sum of the priority weights of the values in a given target criteria set.

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6 17. The content management engine as recited in claim 16, wherein the
7 target criteria sets are stored by the content management engine.

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9 18. The content management engine as recited in claim 17, wherein the
10 target criteria sets are ranked according to their respective priority sums.

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12 19. The content management engine as recited in claim 17, wherein the
13 target criteria set comparator compares a priority sum of a target criteria set
14 requested by a user to a priority sum of a stored target criteria set.

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16 20. The content management engine as recited in claim 15, further
17 comprising a target criteria set link module to link a preferred target criteria set to
18 each information resource and each content element included in each information
19 resource.

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21 21. The content management engine as recited in claim 20, further
22 comprising a content ranking module to compare a priority sum of each preferred
23 target criteria set linked to content elements included in an information resource to
24 the priority sum of the target criteria set linked to the information resource and
25 rank the content elements according to a comparison result.

1
2 22. One or more computer readable media containing instructions that
3 are executable by a computer to perform actions, comprising:

4 associating priority weight values with attributes in a dynamic list of
5 attributes associated with information resources in an information system;

6 associating instances of attribute values with corresponding attributes in a
7 dynamic list of attribute values;

8 designating subsets of the information resources based on sets of one or
9 more of the attribute values;

10 comparing the sets of one or more attribute values according to respective
11 priority sums, wherein a priority sum is obtained by summing priority weight
12 values associated with each attribute value in a set of one or more of the attribute
13 values.

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15 23. The one or more computer readable media as recited in claim 22,
16 wherein each information resource includes one or more content elements
17 possessing one or more of the attributes.

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19 24. The one or more computer readable media as recited in claim 23,
20 further comprising instructions to link each information resource and each content
21 element in each information resource with a set of one or more of the attribute
22 values and if an information resource is designated as a member of a subset by a
23 set of one or more of the attribute values then to rank each content element in an
24 information resource according to a difference between a priority sum of a set of
25 one or more of the attribute values linked to the content element and a priority sum

1 of a set of one or more of the attribute values linked to the information resource,
2 wherein a priority sum is a sum of each priority weight value of each attribute
3 associated with each attribute value in a set of one or more attribute values.

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5 25. The one or more computer readable media as recited in claim 24,
6 further comprising instructions to localize information resources and content
7 elements in the information system for a user of the information system by
8 providing an interface between the user and one or more of the subsets of the
9 information resources and content elements of each information resource in the
10 one or more subsets.

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12 26. The one or more computer readable media as recited in claim 22,
13 further comprising instructions to add attributes to the dynamic list of attributes.

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15 27. The one or more computer readable media as recited in claim 26,
16 further comprising instructions to add attribute values associated with the added
17 attributes to the dynamic list of attribute values.

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19 28. An information system, comprising:
20 information resources having attributes;
21 an extensible table of the attributes, wherein each attribute is assigned a
22 weight;
23 an extensible table of values for the attributes, wherein each value is
24 associated with its corresponding attribute;

1 sets of the values, wherein each set specifies a subset of the information
2 resources and each set can be differentiated by the sum of the weights of each
3 attribute represented by a value in each set.

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5 29. The information system as recited in claim 28, wherein the
6 extensible table of the attributes and the extensible table of values can be
7 expanded without changing a database structure of the information system.

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9 30 The information system as recited in claim 28, wherein each
10 information resource includes various content elements.

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12 31. The information system as recited in claim 30, wherein an
13 information resource and each content element is associated with a preferred set of
14 values for specifying a subset of information resources that includes the
15 information resource or the content element.

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17 32. The information system as recited in claim 31, wherein a content
18 element included in an information resource is ranked relative to other content
19 elements in the information resource according to a magnitude of a difference
20 between a priority sum associated with the content element and a priority sum
21 associated with the information resource, wherein a priority sum is a sum of
22 weights of each attribute represented by a value in the preferred set of values
23 associated with each information resource and each content element.